

UZUNOV, Blagoi, inzh.; NAIDENOV, Khristo, inzh.; PAVLOV, Pavel

Automation and telemechanization in water economy. Khidrotekh
i melior 6 no.7:195-197.

1. Chlen na redaktsionna kolegiia, "Khidrotekhnika i melioratsii"
(for Uzunov).

PAVLOV, P. (Leningrad)

Production fund cycle of a socialist enterprise. Vop.ekon. no.5:
86-96 My '61. (MIRA 14:5)

(Capital)

PAVLOV, P., inzh.

Maintenance. Grazhd.av. 18 no.5:17-18 My '61. (MIRA 14:5)

1. Gosudarstvennyy nauchno-issledovatel'skiy institut Grazhdanskogo
vozdušnogo flota.

(Airplanes--Maintenance and repair)

PAVLOV, P.

Combustion of emulsified fuel oil. P. Pavlov and A. Khovanova. *Posharnoe Delo* 1957, No. 8, 187-188. Fuel oil (sp. gr. 0.894-0.9019 g./cu. cm.; flash point (Brenken) 124°; ignition temp. 146°) with a moisture content of 0 to 10% was used for combustion tests. Oil with a moisture content >8% does not burn; at 4-6% moisture, it burns unstably with foaming, and boils over when heated in bulk. The time elapsed before boiling over depends on the moisture content and varies from 81 to 184 min. At a moisture content of 0 to 3.8%, burning proceeds slowly at the start, becoming intermittent, for oil contg. 3.8% moisture when the temp. reaches 860°. Ivan N. Davidenko

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1127

PHASE I BOOK EXPLOITATION SW/ACSO

Aviamodeling, aerobik staviy. Posobiy dlya rukovodivshykh aviamodelirovaniyem i uchebnyy (Aviamodeling: A Handbook for Instructors of Model Aircraft Clubs and Teachers). Moscow, Voenizdat, 1960. 141 p. 12,000 copies printed.

Chernikov, E.B. Rudimenty, Candidate of Technical Sciences, and A.Ye. Stukhovskiy, Techn. Sci. V.I. Kozlovskiy.

PREPARE: This book is intended for instructors and directors of model airplane clubs sponsored by DOKLAD (All-Union Voluntary Society for Promotion of the Army, Navy, and Air Force).

COVERAGE: The book consists of 47 articles covering various aspects of model aircraft design, construction and operation. The text of the book is illustrated with diagrams. No personalities are mentioned. There are 157 references, all Soviet.

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PAVLOV, P.; KOZOVSKI, Ts.

Development and basic principles in determining the prices in capital construction. n. 26

STROITELSTVO. (Ministerstvo na stroezhitelstvo) Sofia, Bulgaria, Vol. 4, no. 1959

Monthly List of East European Accessions (MEL), 10, Vol. 1, No. 12, December 1959
Incl.

PAVLOV, P.

On the most important. Sov. profsoiuzy 7 no.17:29-30 S '59.
(MIRA 12:11)

(Electrodes--Technological innovations)

BULGARIA / Zooparasitology. Acarina and Insects. Vec- G
tors of Pathogenic Agents. Insects.

Abs Jour: Ref Zhur-Biol., No 6, 1959, 24313.

Author : Pavlov, P.
Inst : "G. Dimitrov" Higher Agricultural Institute,
Vetotechnical Faculty.
Title : Significance of Flies in the Transfer of Trich-
omoniasis of Cattle.

Orig Pub: Nauchni tr. Vissh. selskostopn. in-t "G. Dimitrov"
Vetotekhn. fak., 1956, 6, 383-387.

Abstract: Experiments were conducted with house flies from
a laboratory culture or with those caught in
rooms. In flies which were fed on undiluted vag-
inal mucus of cows sick with trichomoniasis, live
trichomonads were found in the intestines within
9 hours after feeding. In the intestines of flies

Card 1/2

FROM

Card 2/2

51

Author : Pavlov, P.; Revko, P.
Inst : The G. Dimitrov Superior Agricultural Institute
Title : Sanitary Assessment of Water Resources in the Plevna
Area
Orig Pub : Nauchni tr. Vissh. selskostopn. in-t "G. Dimitrov".
Vetotekhn. fak., 1956, 6, 329-402 (Bulgarian; rus. Russ.,
Ger.)

Abstract : No abstract given

Card 1/1

PAVLOV, P. (Sofiya)

Teaching of E.N.Pavlovskii on natural foci of diseases and development of this teaching in Bulgaria. Zhur.mikrobiol.epid.i immu. 31 no.9:80-84 S '60. (MIRA 13:11)

(BULGARIA--EPIDEMIOLOGY)

PAVLOV, P.

PAVLOV, P. New determinations and methods in densitometric analysis.
p. 169. Vol. 5 Jan./Dec. 1955.
IZVESTIYA SERIYA FIZICHESKA. Sofia, Bulgaria

SOURCE: East European Accessions List (EEAL) Vol. 6 No. 4 April 1957

TENCHOV, G., Prof.; PAVLOV, P.

Diagnosis and therapy of pharyngo-laryngeal actinomycosis.
Khirurgia, Sofia 9 no.5:454-456 1956.

(ACTINOMYCOSIS,
 pharyngo-laryngeal (Bul))
(LARYNX, diseases,
 actinomycosis, pharyngo-laryngeal (Bul))
(PHARYNX, diseases,
 same)

PAVLOV, P.

Cotton Gin Set for Carding of Cotton. Leka Promishlenost (light ind strv),
#2:7: Feb 55

PAVLOV, P.

Trimming of Cards for Cotton Ginning with a Cotton Gin Set. Legn
Promishlenost (Light Industry), #3:27: Mar 55

PAVLOV, P.

Automatic Stopping Device for the Card for the Case of Thickening of the
Carded Fleece of the Feeding Roller. Leningradskiy (Light Industry),
#5:12:May 55

PAVLOV, I.

"Iarovizatsiia na kulturnite rastenii. So iia, Zemizdat, 1957. 87 p.
(Yarovization of cultured plants)

DA Not in DLC

SO: Monthly Index of East European Accessions (EEAI) LC, Vol. 7, no. 5 May 1958

Paul, P.

AYDIN, P.; KROVANOV, A.

Burning of petroleum emulsion. *sozh. telo 3 no. 10 - 197*

(MIRA 10 9)

(Petroleum)

PAVLOV, P.

Methods for analyzing operations of small units during fires.
Pozh.delo 3 no.9:11-12 S '67. (MIRA 10.9)
(Fire extinction)

PAVLOV, Petur

Photoperiodism and the lighted period of plants.
Priroda Bulg 12 no. 6:56-60 N-D '63.

PAVLOV, Petur

Stimulation, vernalization, and fertilization of wheat. Sel'skosp
nauka 1 no.4/5:439-448 '62.

1. Institut po rastenievudstvo v Sofia.

PAVLOV, Pavel, inzh.

Economical linings of pressure hydraulic tunnels. Khidrotekh i
melior 7 no.1:23-25 '62.

30(1)

SOV/25-59-2-46/48

AUTHOR:

Davlov, P.A., Agronomist-Horticulturist
~~(Chuvashskaya ASSR)~~

TITLE:

They Write To Us (Nam pishut)

PERIODICAL:

Nauka i zhizn', 1959, Nr 2, p 79 (USSR)

ABSTRACT:

A short note sent to the editor on the successful treatment of a diseased pear tree with streptomycine.

Card 1/1

YACH, Yu.I.; PAVLOV, P.A.

Study of the concentration of stresses in the torsion of
shafts of variable cross section. Zav.lab. 23 no.6 719-721
'62. (1962)

1. Leningradskiy politekhnicheskii institut.
(Strength of materials) (Strains and stresses)

S/032/62/028/006/016/025
B108/B104

10.7000

AUTHORS: Yagn, Yu. I., and Pavlov, P. A.

TITLE: Study of stress concentration on shafts of variable cross section during twist

PERIODICAL: Zavodskaya laboratoriya, v. 28, no. 6, 1962, 719 - 721

TEXT: A method of determining the local stresses in a shaft of varying diameter during twist is presented. It consists in determining the angle of displacement γ_s (in the plane tangential to the surface) from the measured twist angle ω_r : $\gamma_s \cos \alpha = -2\omega_r$, where α is the angle between the radius vector and the normal of the surface. There are 3 figures. 13

ASSOCIATION: Leningradskiy politekhnicheskii institut (Leningrad Polytechnic Institute)

Card 1/1

PAVLOV, P.A.

New line in the technical progress of prefabricated housing
construction. Stroi.mat. 5 no.7:9-12 J1 '59.

(MIRA 12:10)

(Leningrad--Precast concrete construction)

28(5)

AUTHORS:

Yaga, Yu. I., Kovalov, K. F., Myakinin, L. V., SOV/32-25-6-46/53
Pavlov, P. A., Tseytlin, V. Ya.

TITLE:

Device for Testing Simultaneous Extension and Torsion (Ustanovka
dlya ispytaniy na odnovremennoye rastyazheniye i krucheniye)

PERIODICAL:

Zavodskaya Laboratoriya, 1959, Vol 25, Nr 6, pp 756-757 (USSR)

ABSTRACT:

A device was constructed which permits a simultaneous extension (with a load of up to 125 t) and torsion (with a torsional moment up to 7000 kgm) (Fig) for the testing of axial-models of hydroturbines with respect to construction variants designed by the Leningradskiy metallicheskiy zavod (Leningrad Metal Works) for the Kuybyshevskaya i Bratskaya GES (Kuybyshev and Bratsk Hydroelectric Power Plants). The arrangement is in principle a hydraulic press with a system for the extension of the sample between the piston and the upper traverse. Torsion is carried out with hydraulic jacks up to an

angle of 90° may, however, go still further. Since in some cases with simultaneous extension and torsion higher friction is caused load is measured with a special dynamometer; the deformation measurements by the dynamometer may be made according to various principles (Ref 1). There are 2 figures and 1 Soviet reference.

Card 1/2

Device for Testing Simultaneous Extension and Torsion

SOV/32-25-6-46/53

ASSOCIATION: Leningradskiy politekhnicheskii institut im. M. I. Kalinina
Leningrad Polytechnic Institute imeni M. I. Kalinin)

Card 2/2

28(5)

AUTHORS:

Yagn, Yu. I., Pavlov, P. A.

SOV/32-35-6-4-1959

TITLE:

Devices for the Measurement of the Elongation of Samples With Simultaneous Extension and Torsion (Pribory dlya izmereniya udlineniy obraztsov pri odnovremennom rastyazhenii i kruchenii)

PERIODICAL:

Zavodskaya Laboratoriya, 1959, Vol 25, Nr 6, pp 758-759 (USSR)

ABSTRACT:

The majority of devices for the measurement of longitudinal deformations are constructed in such a manner that it is not possible to measure torsion at the same time. It is, however, possible to do away with this disadvantage. This is shown by the schematical drawing of a reflecting device by Martens (Fig 1). A device for the two above-mentioned measurements was already described (Ref 3) and is in the present case explained and represented by a diagram (Fig 2). Calculations of errors are given and it is pointed out that for the construction described it is possible to use wires with a considerably lower elasticity modulus. In order to avoid a possible unsymmetrical extension of the sample it is recommended to apply two of the described devices obliquely and symmetrically to both ends of the sample. There are 2 figures and 3 Soviet references.

Card 1/2

Devices for the Measurement of the Elongation of Samples
With Simultaneous Extension and Torsion

SOV/30-25-6-47 51

ASSOCIATION: Leningradskiy politekhnicheskii institut im. M. I. Kalinina
(Leningrad Polytechnic Institute imeni M. I. Kalinin)

Card 2/2

PAVLOV, P.A.; PAROMENSKIY, A.A.; LIPSHITS, I.I.

Machine for testing the simultaneous cyclic torsion
and constant tension. Zav.lab. 26 no.6:762-764 '60.
(MIRA 13:7)

1. Leningradskiy politekhnicheskoy institut im. M.I.
Kalinina.

(Testing machines)

MYAKININ, L.V.; PAVLOV, P.A.

Optical-mechanical apparatus for measuring small deformations
in prismatic samples. Nauch.-tekhn.inform.bibl.LPI no.1/2:
177-180 '58. (MIRA 12:6)
(Deformations (Mechanics))
(Measuring instruments)

PAVLOV, P.A., kand.tekhn.nauk, dotsent

Strength of tubular shafts with flanges subjected to
simultaneous stretching and torsion. Rasch.na prochn. no.7:
375-389 '61. (MIRA 14:11)

(Shafting--Testing)

PAVLOV, P.A., insh.

In the united camp of socialism. Metallurg 2 no.11:20-23
N '57. (MIRA 12:2)
(Europe, Eastern--Economic policy) (Metallurgy)

OTOPOKOV, G.M., inzh.; PAVLOV, S.A., doktor. nauk, prof.

Use of hydrophilic polymers for obtaining the face layer of artificial leather with a protein fibrous base. Izv. vys. ucheb. zav.; tekhn. leg. prom. no.4:26-33 '63. (MIRA 16:10)

1. Moskovskiy tekhnologicheskiy institut legkoy promyshlennosti. Rekomendovana kafedroy tekhnologii iskusstvennoy kozhi i ple-nochnykh materialov.

PAVLOV, S.A.; OL'KHOVA, A.I., red.

[Scientific research transactions for 1961] Nauchno-
issledovatel'skie trudy za 1961 g. Pod red. S.A.Pavlova.
Moskva, Rostekhizdat, 1962. 142 p. (MIRA 18:2)

1. Moscow. TSentral'nyy nauchno-issledovatel'skiy institut
shelkovoy promyshlennosti.

SAMYSHKINA, M.A., inzh.; PLOTNIKOV, I.V., kand. tekhn. nauk; PAVLOV,
S.A. doktor tekhn. nauk, prof.

Investigating some factors which increase the wear resistance
of electrostatic suede leather. Report No.2. Izv. vys. ucheb.
zav.; tekhn. leg. prom. no.2:14-20 '63. (MIRA 16:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut iskusstvennoy
kozhi i plenochnykh materialov (for Samyshkina, Plotnikov).
2. Moskovskiy tekhnologicheskoy institut legkoy promyshlennosti
(for Pavlov). Rekomendovana kafedroy tekhnologii iskusstvennoy
kozhi i plenochnykh materialov Moskovskogo tekhnologicheskogo
instituta legkoy promyshlennosti.

TROPANOVA, T.N., inzh.; MONASTYRSKAYA, M.S., kand. tekhn. nauk,
dotsent; PAVLOV, S.A., doktor tekhn. nauk, prof.

Studying the reaction of thiourea with polychloroprene latex.
Izv. vys. ucheb. zav.; tekhn. leg. prom. no.3:30-35 '63.
(MIRA 16:7)

1. Moskovskiy tekhnologicheskii institut legkoy promyshlennosti.
Rekomendovana kafedroy tekhnologii iskusstvennoy kozhi.
(Rubber, Synthetic) (Urea)

BOKOV, Yu.S., mladshiy nauchnyy sotrudnik; MAKAROV-ZEMLYANSKIY, B.Ya.,
assistant; MAKAROV-ZEMLYANSKIY, Ya.Ya., doktor khim. nauk, prof.;
PAVLOV, S.A., doktor tekhn. nauk, prof.

Obtaining mixed polyamides with the use of trihydroxyglutaric
acid. Nauch. trudy MTILP no.24:40-46 '62. (MIRA 16:7)

1. Nauchno-issledovatel'skaya laboratoriya po polucheniyu
iskusstvennoy kozhi i plenochnykh materialov.
(Polyamides) (Glutaric acid)
(Leather, Artificial)

PAVLOV, S.

Airlines with which Aeroflot collaborates: Air France. Grazhd.
av. 19 no.3:27 Mr '62. (MIRA 15:5)
(France--Aeronautics, Commercial)

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29(1)

SOV/29-60-1-14/25

AUTHOR: Pavlov, S.

TITLE: Rocket-ships₁₃

PERIODICAL: Tekhnika molodezhi, 1960, Nr 1, pp 16-17 (USSR)

ABSTRACT: In this article the author tells of his own notion of future space ships. He refers to the latest work by K. E. Tsjolkovskiv. in which the latter points out the possibility of transform-
ing aircraft into space ships. A flying machine with airfoils was for the first time designed by the Soviet Engineer Tsander, who deals exclusively with problems of space flight. According to the author's opinion, two types of space ships will exist: interplanetary ones, and ships for free space. The interplane-
tary ships will be equipped with airfoils. A gliding flight⁴ in the atmosphere will enable them to land at a place especial-
ly selected for this purpose without danger. If such a ship penetrates slowly into the atmosphere, its fuselages would be heated only very little. The weight of such a ship will be determined by the kind of fuel. It will apparently be necessary for its engines to be driven by nuclear power. In this case, a

Card 1/3

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Rocket-ships

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SOV/29-60-1-14/25

multistage construction, such as is indispensable if chemical fuels are used, will no longer be necessary. Acceleration for ²³ starting and navigation in space will be done by means of trac-
tive engines. For landing,³ braking- and supporting engines will be used. Such jets of supporting engines as are directed downwards will permit hovering flight. It will also be possible to land by gliding. For landing purposes a space ship must have an undercarriage equipped with either wheels or caterpillars. The fuselage may be of a welded construction. Thick outer cover and filler will protect the crew and the equipment from the action of cosmic radiation and against being overheated. In the case of a crew numbering several dozens of men, a space ship intended to fly to the Moon, Mars, or Venus will probably weigh not less than 300 to 500 t. Space ships for free space will probably be able to be built only in cosmic space. By means of cosmic space ships built for transport purposes, assembly equipment, constructions, and the constructors will be conveyed to a certain orbit. Such a space ship will not have to overcome any atmospheric resistance, and it will therefore not be necessary for it to be streamlined. Possibly several

Card 2/3

PAVLOV, S.A., doktor tekhnicheskikh nauk; MONASTYRSKAYA, M.S., kandidat
tekhnicheskikh nauk

Elements of a packing material formula. Leg.prom.15 no.8:35-39
Ag '55. (MLRA 8:10)
(Packing (Mechanical engineering))

PAVLOV, S.A.

Mechanical harvesting of root crops for human consumption and livestock feed. Sel'khoz mashina no.10:18-21 0'55.

(MIRA 8:12)

1. Vsesoyuznyy Nauchno-issledovatel'skiy institut sel'skokhozyaystvennogo mashinostroyeniya

(Root crops--Harvesting) (Agricultural machinery)

1ST AND 2ND GROUPS										3RD AND 4TH GROUPS										5TH AND 6TH GROUPS																			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
PAVLOV, S. A. BC PROCESSES AND PROPERTIES INDEX "VIER" thermoelectric relay. S. A. PAVLOV and N. K. BARANOV (J. Appl. Chem. Russ., 1964, 7, 637-638).—A simple and inexpensive electric thermo-regulator is described. H. T. 550-55A METALLURGICAL LITERATURE CLASSIFICATION																																							
COMMON ELEMENTS COIN MATERIALS INDEX																																							

POLINSKIY, S.L., inzh.; PLOTNIKOV, I.V., kand. tekhn. nauk; PAVLOV, S.A.,
doktor tekhn. nauk, prof.

Synthesis and investigation of hydrophilic polyester urethanes.
for the manufacture of artificial leather with high hygienic
properties. Izv. vys. ucheb. zav.; tekhn. leg. prom. no.5:
31-36 '63. (MIRA 16:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut plenochnykh
materialov i iskusstvennoy kozhi (for Polinskiy, Plotnikov).
2. Moskovskiy tekhnologicheskii institut legkoy promyshlennosti
(for Pavlov).

DOERYNINA, L.Ye., assistant; PAVLOV, S.A., doktor tekhn. nauk, prof.

Film formation from hydrophilic polymers of the polyacrylic acid type. Nauch. trudy MTILP 25:134-141 '62. (MIRA 16:8)

1. Kafedra tekhnologii iskusstvennoy kozhi i plenochnykh materialov Moskovskogo tekhnologicheskogo instituta legkoy promyshlennosti.

OTOPKOV, G.M., inzh.; PAVLOV, S.A., doktor tekhn. nauk, prof.

Use of hydrophilic polymers for the production of the grain
layer of artificial leather with a protein fibrous base.
Izv. vys. ucheb. zav.; tekhn. leg. prom. no.5:37-43 '63.

(MIRA 16:12

1. Moskovskiy tekhnologicheskoy institut legkoy promyshlennosti.
Rekomendovana kafedroy tekhnologii iskusstvennoy kozhi i
plenochnykh materialov.

PAVLOV, S. A.

USSR/Chemistry - Silicon Organic
Compounds

11 Feb 53

"The Heat Effect of Hydrolysis on Alkyl- and Aryl-
chlorosilanes," K. A. Andrianov and S. A. Pavlov;
All-Union Elec Engr Inst im V. I. Lenin

DAN SSSR, Vol 88, No 5, pp 811-814

Detd the heat effect of hydrolysis of SiCl_4 ,
methyltrichlorosilane, dimethyldichlorosilane,
trimethylchlorosilane, ethyltrichlorosilane, and
phenyltrichlorosilane in the presence of an excess
of H_2O . Established that the heat effect of the
reaction depends on the functional character of

264T22

the above alkyl- and arylchlorosilanes, and is
practically independent of the nature of the org
radical. The reaction rate of the hydrolysis is
high and is commensurate with the rate of ionic
reactions. Presented by Acad A. V. Topchiyev
13 Dec 52.

SOV/137-59-7-15645

Translation from: Referativnyy zhurnal, Metallurgiya, 1959, Nr 7, p 208 (USSR)

AUTHORS: Pavlov, S.A., Terminasov, Yu.S.

TITLE: Roentgenographical Investigation on the Block Structure and Micro-deformations in 45 Grade Steel Subjected to Lubrication Friction

PERIODICAL: Uch. zap. Leningr. gos. ped. in-ta im. A.I. Gertsen, 1958, Vol 148, pp 261 - 263

ABSTRACT: Harmonic analysis of the shape of diffraction Roentgen reflexes was used to investigate deformations of the crystalline lattice in "45" steel surface layers; the steel was subjected to friction with lubrication under loads of 60 to 140 kg/cm². It was stated that heavier loads increased the depth of the cold-hardened layer and its microhardness. This process was accompanied by the crushing of blocks and the origination of microstresses in the cold-hardened layer. It was shown that deformations decreased at a remote distance from the surface and at a depth of 250 μ (for loads of 120 kg/cm²) the structure was not deformed.

A.B. ✓

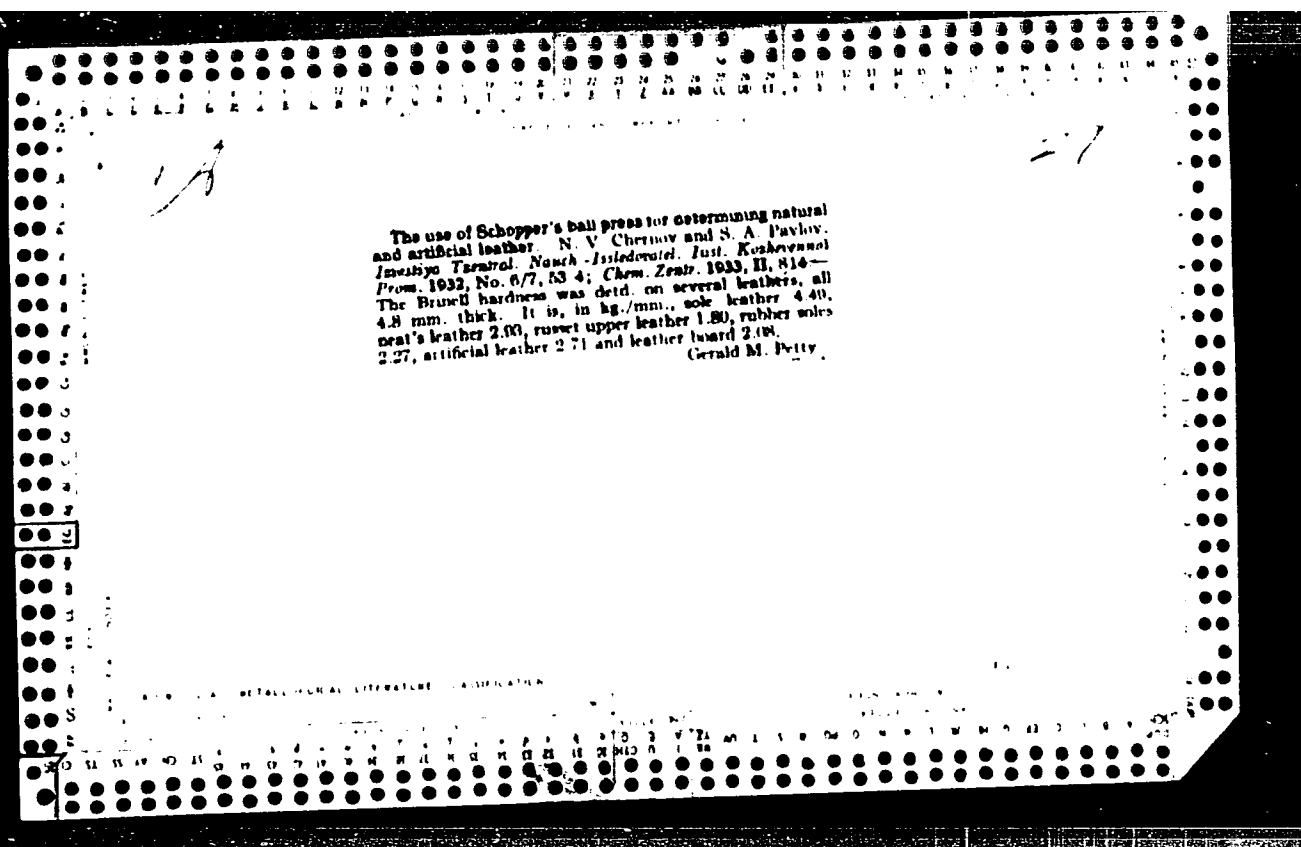
C rd 1/1

PAVLOV, S.A.

KSh-2 potato digger. Trakt. i sel'khoz mash. no. 6:35-36
(MIRA 12:9)
Ja '59.

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001239

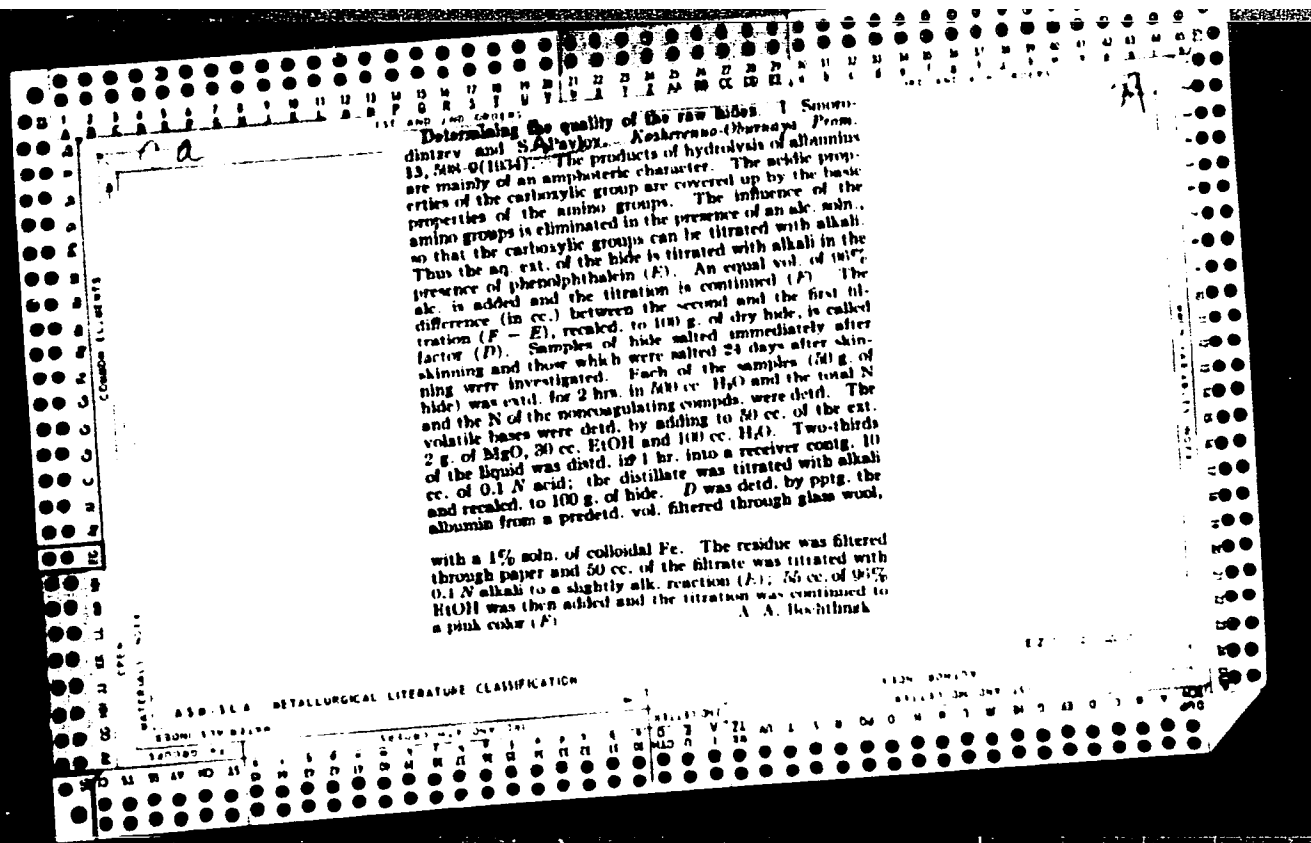
1. Vsesoyuznyy nauchno-issledovatel'skiy institut mashinostroyeniya.
stvennogo mashinostroyeniya.
(Potato digger(Machine))



CA 13

Cork substitute. N. M. Potekh and S. A. Pavlov.
 Russ. 30,380, Oct. 31, 1934. A cork-like mass is prepared
 from the waste obtained in the manuf. of wood pulp.
 This waste is pressed to a H₂O content of about 50%.
 mixed with molten commercial gelatin, about 2% tannin
 is added and the mass is formed and dried

DETAILS OF LITERATURE CLASSIFICATION



The effect of antiseptic agents on the softening and liming of salted cat skins. S. A. Pavlov. *Gerber* 60, 39-40 (1934) —A series of 50-g. samples of salted cat skins were treated with 200 cc. H₂O either alone or with admn. of 10 g. CHCl₃, 1 g. NaF, 3 g. CaO, 1 g. NaF + 3 g. CaO or 3 g. CaO + 10 g. CHCl₃, resp. The formation of sol. N compounds, both volatile and otherwise, and the liming effect on the hair were followed over a 23-day period, the samples being kept at 20°. At the end of that period, cross sections of the hides were examd. Conclusions: Probably owing to the trifluency of CHCl₃ to ppt. the proteins and hinder swelling of hide substance, it not only acts as a preservative but also inhibits liming of the hair. NaF, on the other hand, exerts a beneficial antiseptic action without excessively delaying unhairing.

I W Perry

17

Method for determining total nitrogen of albuminous substances. A. A. Pavlov. *Azhovskaya Odeskaya Prom. Akad. R. 15, 72 3 (1936)*. Results accurate to about 1%. Can be obtained by converting the N to NH_3 by the Glad-ling-Kjeldahl process, causing the vol. of N_2 evolved with of NaOH and measuring the vol. of N_2 evolved. A. A. Buchling

ASD-55A METALLURGICAL LITERATURE CLASSIFICATION

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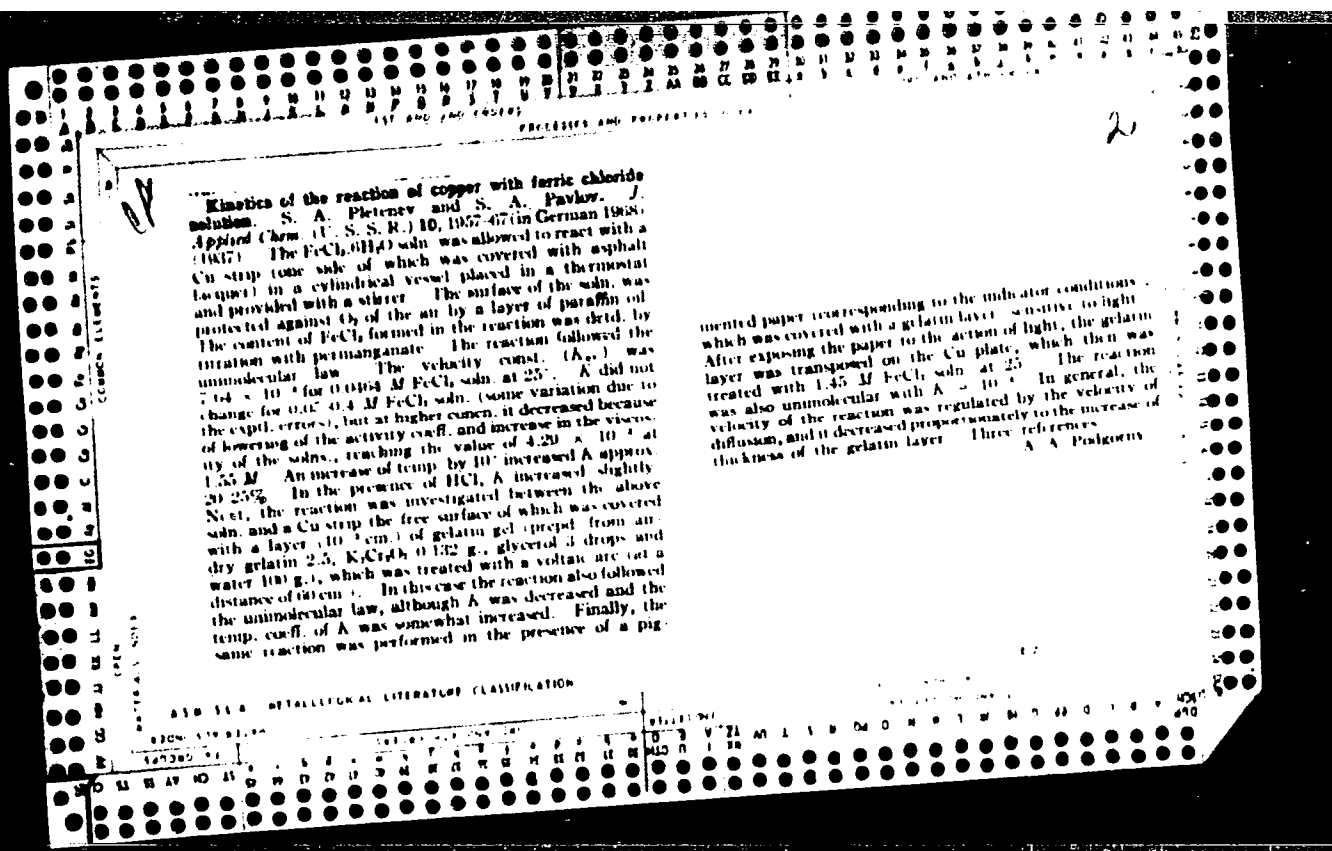
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12

Method for the determination of coefficient D. I. A. Smolintsev and S. A. Pavlov *Compt. rend. acad. sci. U. R. S. S. 15, 487-90 (1937) (in French)* - The detn. of coeff. D is of considerable importance in studying the quality of meat products, skins, hides, etc. By means of a preliminary test the quantity of 0.1 N KOH required to neutralize a 0.1% $Al_2(SO_4)_3$ soln. with bromothymol blue as indicator is detd. To 100 cc. of test soln. (usually an aq. ext. of material to be tested) are added 25 cc. of 0.1% $Al_2(SO_4)_3$ and a corresponding quantity of 0.1 N KOH. After 5 min. the soln. is filtered and 50 cc. of the filtrate titrated with alkali to a weak pink (phenolphthalein) (E, general acidity). Next, 55 cc. of alc. is added at 60° and the titration continued to a faint rose color (F, alc. acidity). The difference between E and F is calcd. according to the normal equiv. of alkali per 100 g. of tissue, the coeff. of the liquid being 1:4, and is called the coeff. D. $D = \frac{(F - E) (100 + 25 + d)}{100 \cdot 10 \cdot 60}$

W. I. Peterson

ASB-51A METALLURGICAL LITERATURE CLASSIFICATION

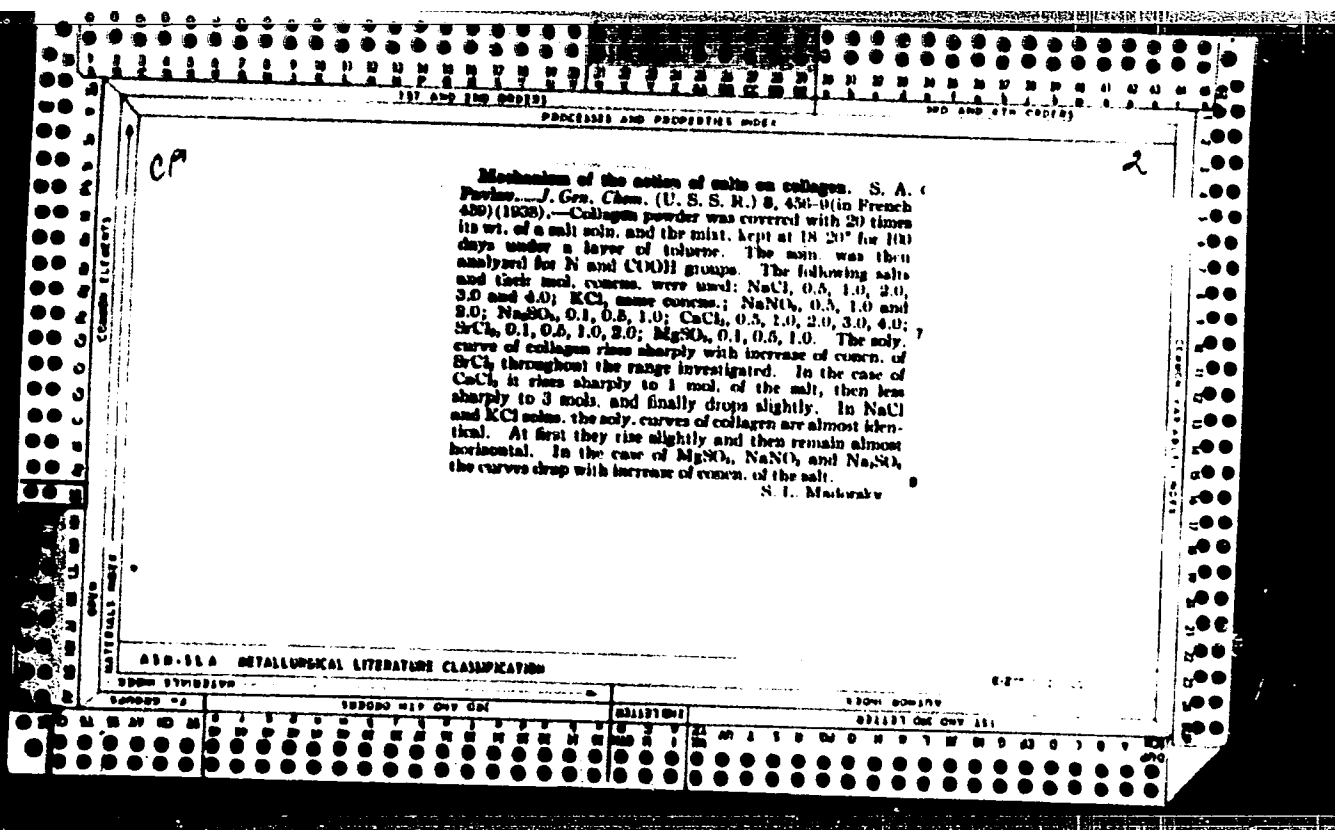
Action of alkali metals on collagen. A. A. Smirnodintsev and S. A. Pavlov. *Compt. rend. acad. sci. U. R. S. S.* 17, 217-20 (1937) (in French); cf. C. A. 31, 7897¹.—Dry com. collagen was mixed with 0.5 mol. solns. of NaCl or Na₂SO₄ in the ratio 1:20 and allowed to stand at 17-18° for 20-24 days. During the 1st day of the soaking the total acidity (E) and the blockage of carboxyl by amino-groups (alc. acidity) (F) decreased as a result of a combination of the protein with the salt. After 2-3 wks. F, and especially F increased, the latter up to about twice its original value. This indicated that a great quantity of the active groups of the proteins entered slowly into combination with the salt and progressively increased the enolization of the peptide linkages. The 2 salts showed similar effects. The alm. value of the coeff. P and its components varied with the properties of the dry com. powder used, which did not represent a chem. entity. B. Curzon

K. Curzon

0 5 0 . 5 1 0 METALLURGICAL LITERATURE CLASSIFICATION

CIA-RDP86-00513R0012396

PROCESS AND PROPERTIES INDEX																									
1st AND 2nd ORDER													3rd AND 4th ORDER												
<i>10</i> <i>11A</i> Mechanism of the action of neutral salts on proteins. II. T. A. Smorodintsev and S. A. Pavlov, <i>Dokl. Akad. Nauk SSSR</i> 19, 1330 (1967), cf. <i>Chem. Abstr.</i> 61, 7807. Previous conclusions are confirmed. Also in <i>J. Gen. Chem. (U.S.S.R.)</i> 7, 2401 (1967) L. E. Gilson																									
ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION																									
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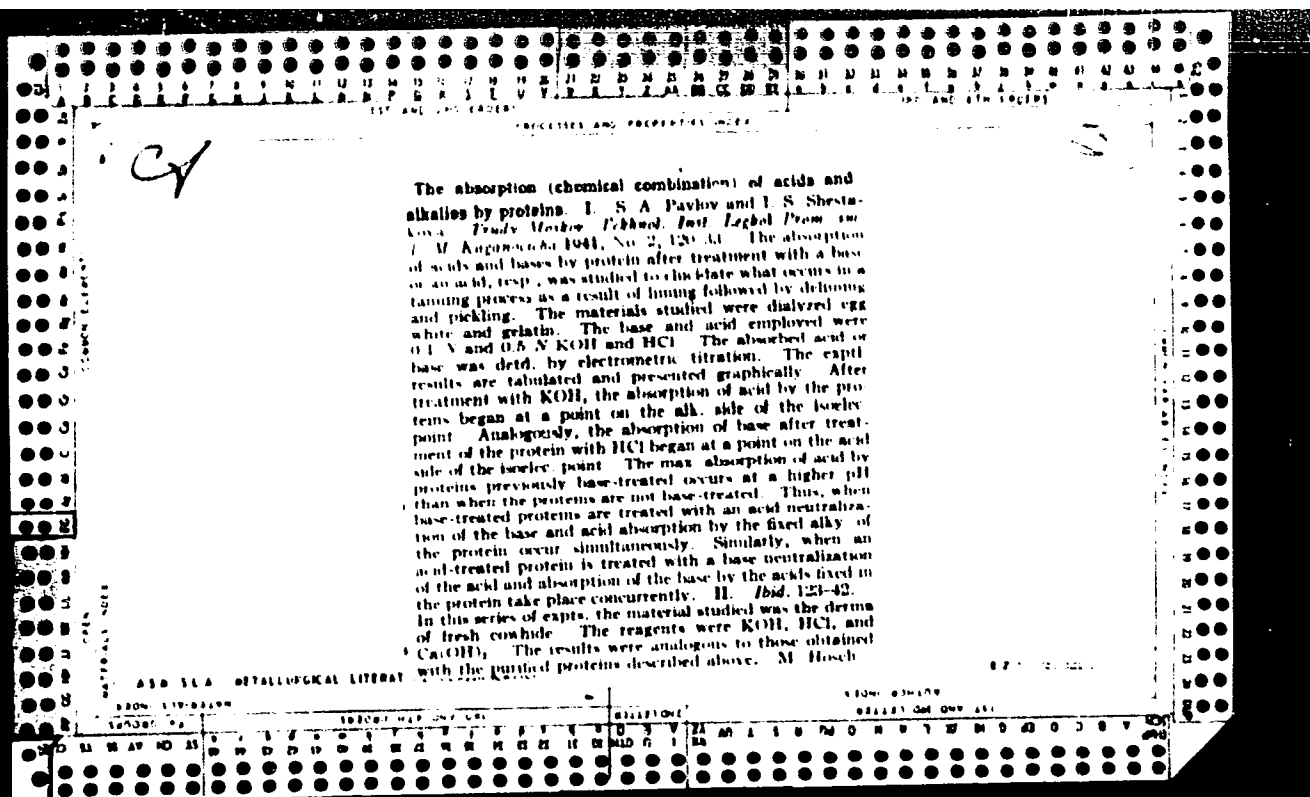
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CR

Neutral salts and the boiling temperature of collagen
 S. A. Pavlov and I. N. Shrestakova *Lekhans Form. 1.*
 No. 3, 33-4(1941); *Chem. Zvesti* 1943, II, 400. The
 boiling temp. of collagen is lowered by NaNO_3 , CaCl_2 ,
 $\text{Ca}(\text{NO}_3)_2$ and MgCl_2 , raised by K_2SO_4 , NaCl , KCl ,
 Na_2SO_4 and MgSO_4 , and unchanged by KNO_3 in concn.
 above 0.5 M. No relation to the lyotropic series could be
 established. M. G. Moore

ASD-51.6 METALLURGICAL LITERATURE CLASSIFICATION

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87	87	87	87	87
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90	90	90	90	90
91	91	91	91	91
92	92	92	92	92
93	93	93	93	93
94	94	94	94	94
95	95	95	95	95
96	96	96	96	96
97	97	97	97	97
98	98	98	98	98
99	99	99	99	99
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26

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PROCESSES AND PROPERTIES INDEX

Measurement of the consistency of printing inks. S. A. Pavlov. *Prikladnaya Khimiya* 1941, No. 3, 302. (USSR) 1942, II, 2911. Various methods for the determination of the consistency of triturated inks are discussed, and an app., worked out by P., is described. The app. could be used for any range of measurements. It makes unnecessary the weighing of the sample and excludes other exp't. errors. The measurements carried out with this app. confirmed the known fact of bifurcation of the ink by trituration (decrease in the consistency up to 50%). It was also found that the final consistency of the inks depended on the time in which the ink was allowed to stand after trituration: it increases over 25% during the time from 1 to 60 min.

Sonya G. Machelson

ASAC SLA DETAILORIAL LITERATURE CLASSIFICATION

STANDARD ONE ONE ONE

STANDARD ONE ONE ONE

1A

29

PROCESSES AND PROPERTIES INDEX

Oxidation of leather proteins. S. A. Pavlov. *Legbani*
Press, 1946, No. 9, 17-18. The main aging process of
 leather is oxidation of its proteins, with formation of
 aminonitriles. Fe salts increase the rate of oxidation.
 G. M. Kosolapoff

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

SECTION	SUBSECTION	SECTION	SUBSECTION
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
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94	94	94	94
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98	98	98	98
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Chemical reactions which characterize the quality of the raw materials for leather and sheepskin. S. A. Pavlov and I. S. Shestakova. *Lekguyi Promi* 7, No. 2, 24-5 (1947). *Chem. Zvesti* 1047, 1, 1053-4. The increases in tyrosine, tryptophan, cystine, lacto- and dihydroxy content were noted after 1 to 30 days following slaughter. No essential changes could be detected in the hide during the first few days. M. G. Miron

CA

Mechanical destruction of proteins I. Milling of

collagen and its derivatives. B. A. Dzhukov and N. K. Karamzin (Technol. Inst. Consumer Ind., Moscow) *Kolloid. Zhur.* 11, 420-30(1949).—When skin powder (I), cooked skin powder (boiled in H_2O for 10 min.), and gelatin (II) were ground in a ball mill at 20° for 85, 60, and 15 hrs., resp., they became sol. in cold H_2O , giving sols. of low η . Further milling (for up to 120 hrs.) had no addnl. effect on η . The temp. coeff. of η of these sols. was almost equal to that of H_2O , i.e. much smaller than before milling. The relative amts. of amino N and of polypeptide N were not affected by milling. I, milled for 170 hrs., had color reactions similar to those of heat-degraded I; its sols. were pptd. by $I_2 + KI$ and $SnCl_4$ but not by Zn^{++} , $FeCl_3$; it gave no reaction with $HgNO_3$, but the Millon and biuretic reactions were very intensive, showing accumulation of cyclic structures. Effort was made to prove this accumulation by extn. with $CHCl_3$, but only suspensions (very stable) resulted. J. J. Bikerman

31

CA

Structure of synthetic leather. S. A. Pavlov and N. K.
Barambolm. *Lezhava* Prom. 10, No. 12-88-4(1960).
Characteristics of leather and physicochem. characteristics
of film-forming substances, and structure film of synthetic
leather for uppers on a fiber base. B. Z. Kamich

Pavlov, S.A.

LEONT'YEV, I.I.; LYUKSENBURG, M.S., kandidat tekhnicheskikh nauk, retsenzent;
CHERNOBYL'SKIY, G.I., inzhener, retsenzent; PAVLOV, S.A., doktor
tekhnicheskikh nauk, professor, spetsredaktor; IVANOVA, N.M.,
redaktor. DUBOVKINA, E.A., tekhnicheskiiy redaktor

[Manual on processing hides] *Rukovodstvo po obrabotke kozhsyr'ia.*
Moskva, Pishchepromizdat, 1953. 158 p. [Microfilm] (MLRA 7:10)
(Leather industry)

PAVLOV, S.A.

KOLOSOVA, G.I., mladshiy nauchnyy sotrudnik; HADANINA, A.I., kandidat
tekhnicheskikh nauk; ~~PAVLOV, S.A.~~ akademik tekhnicheskikh nauk,
professor.

Microscopic and microphotographic analysis of the structure of
artificial leather soles. Leg.prom.14 no.12:23-26 D '54.
(Leather, Artificial--Testing) (MIRA 8:2)

PAVLOV S. A.

PAVLOV, S.A.; BADANINA, A.I.

Unsaturated high molecular weight compounds containing carboxyl
groups. Soob.o nauch.rab.chl.VKHO no.3:18-20 '55. (MIRA 10:10)
(Unsaturated compounds) (Macromolecular compounds) (Carboxyl group)

PAVLOV, S A

chem

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1164. Compositing and vulcanisation of high-molecular substances containing carboxyl groups and double bonds. S. A. PAVLOV and N. N. KILKOROVA. *Doklady Akad. Nauk SSSR* 1966, No. 3, 56-2. (Engl. transl. in *Chem. Abstr.* 1966, 615152.)

The authors study the influence of various fillers upon the properties of the plasticized butadiene-acrylonitrile rubber. The plasticizer used as a hydropolymers containing material is given artificial leather with good hygienic properties. The fillers may be arranged thus according to the ultimate tensile strength of the vulcanisates on elongation and the water-resistance of the unvulcanised stocks: zinc oxide > kaolin > lamp black > whitening, and in this order according to the rate of plastic flow of these stocks: zinc oxide < kaolin < lamp black < butadiene-acrylonitrile rubber without filler < whitening. In vulcanisates whitening on the other hand has a reinforcing effect, which apparently, is explained by its chemical interaction with the carboxyl groups in the rubber during vulcanisation. On heating the plasticised rubber to 120°C in the presence of phosphoric acid as a catalyst esterification and structuration occur; the resulting vulcanisate shows increased water resistance.

162D21MN21.5

Ph aay

PAVLOV, S.A.; MAKAROV-ZEMLYANSKIY, B.Ya.

Combining polyamides with other high molecular weight substances
in order to change their mechanical properties and to increase the
adhesion and hygroscopicity of obtained films. Soob.o nauch.rab.
chl.VKHO no.3:53-56 '55. (MIRA 10:10)
(Amides) (Macromolecular compounds)

PAVLOV, S. A.

M.H. Preparation of unsaturated high polymers containing carboxylic groups. S. A. Pavlov and A. I. Badamina (Technol. Inst. Light Ind., Moscow). *Nauka, Trudy, Moscow, Tekhnol. Inst. Light Ind.* 5, 44-76 (1955). A butadiene-acrylonitrile copolymer, contg. 10.1% N, with 27.1% acetone ext. and 1.76% CCl₄ ext., prepd. from 0.8% butadiene (1.14 mole) and 3.2% acrylonitrile (0.72 mole) was saponified to 0.29% N in 60 hrs. by a 30% H₂O-EtOH soln. of NaOH. After 35 hrs. a partially saponified product with 5.18% N was obtained. N was detd. in vapors from saponification. During the first 12-18 hrs. very little N was liberated. Max. liberation of N occurred in 28-32 hrs. *2* product swells in water, is brittle, but can be plasticized by glycerol. (A postscript at end. About half of the COOH groups are more reactive.)

J. Moore

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PAVLOV, S A

AK *5* *4560* *5m.04*

Vulcanization of unsaturated high polymers containing carboxylic groups. S. A. Pavlov and N. S. Khromova (Izobrat. Inst. Leningrad Univ., Moscow). Nauch. Trudy. Moskov. Tekhnol. Inst. Legkoi Prom. S. 76-84 (1955).—An unsatd. high polymer (I) (cf. preceding abstr.) was vulcanized at 140° in 45 min. at 25 kg./sq. cm. The product was a hard, elastic material. The possible reduction of II to I in the hardness of the product. The etherification of I to a part of the free COOH groups, and the acidity of I from 4.93 to 1.6 mg. equiv. A "vulcanization" without S was possible. A batch of 100 I, 100 II, 10 III, and 5780h was vulcanized 45 min. at 140°. A product with 60 kg./sq. cm. resistance to rupture, 220% relative and 22% plastic elongation was obtained. L. Mosser

IM *carb*

PAVLOV, S. A.

27
4E30
The destruction of polyisobutylene by nitric acid. N. D. Zakharenko and S. A. Pavlov (Technol. Inst. Light Ind., Moscow). *Nauch. Trudy Mosk. Tekhnol. Inst. Legk. Prom.* 5, 81-7(1955).--HNO₃, d. 1.52 decamp polyisobutylene (D). The mol. wt. of 1 (200,000) decreases to 2000-5000 in 4-6 hrs. at 110-120°. An increase of temp. speeds up the reaction. I. Masner

Am for orb

PAV 100, S.A.

Elastic impregnating substances. I. Impregnation of gaskets for pumps. S. A. Pavlov and M. S. Mamonovskaya (Technol. Inst. Light Ind., Moscow). Nauch. Trudy, Akad. Nauk, Inst. Legkoi Prom. 6, 61-60 (1956). Special rubber gaskets which are resistant to rubbing have been made from synthetic rubber SKN-40. The addition of poly(vinyl chloride) (I) and fillers raises the abrasion resistance and the sp. gr. of the gaskets. Best results have been attained with SKN-40 100, I 40, dibutyl phthalate 20, fillers 41, carbon black 100, Altax 1, ZnO 2, Aktinal 3, and S 2 parts. It is vulcanized 20 min. at 160°. L. Mascher

pm
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PAVLOV, S. A.

15
Theory of fillers in rubber batches. S. A. Pavlov and
N. S. Khromova (Technol. Inst. Light Ind., Moscow).
Nauch. Trudy, Akad. Tekhnol. Inst. Legkol Prom. 6, 60-61
(1955).—The most important stiffening factor of a filler
is its mol. structure. Active fillers for a hydrophilic product
must also be hydrophilic. Their activity decreases in the
order $ZnO > kaolin > carbon\ black > chalk$. ZnO has a
significant stiffening effect because it reacts with the $COOH$
groups of the hydrophilic product. L. Masluz

4
4E2C-1
2 may

PM - 0006

PAVLOV, S. A.

Saponification of nitrile groups in high polymers. N. D. ~~Zakharov and S. A. Pavlov (Technol. Inst. Light Ind. Moscow). ~~Nauka Press, Moscow. Tekhnol. Inst. Light Ind. Prom. 6, 64-9(1955).~~~~ A possibility of sapon. of nitrile groups in high polymers to amides has been proved on SKN-40, a copolymer of butadiene and acrylonitrile. SKN-40 contg. 10.1% N, has been treated by 3 and 15% H_2O_2 (4 moles) and KOH by heating 4 hrs. at $40-50^\circ$ and then with H_2O , 10-20 hrs. at $180 \pm 10^\circ$ in an autoclave. I. M.

6
4620-1
2 May

RM 006

PAVLOV; S. M.

7 May

V526. Vulcanisation of butadiene acrylonitrile rub-

ber without sulphur. N. D. ZAKHAROV, I. M.

ZAKHAROVA, and S. A. PAVLOV. Legkaya Prom.,

1955, 15, No. 2, 23-9-1955. N. Kaut., 1955, 2,

261-2. The effect of vulcanisation period and tem-

perature on tensile strength, elongation, and hard-

ness was investigated. For the tests, a mix of

rubber 100, lamp black 100, stearic acid 2, zinc

oxide 2, dibutyl phthalate 20, and magnesium oxide

3, was used, milled for 40 to 45 min, and calendered

into sheets of 2.5 to 3.5 mm thickness. Vulcanisa-

tion of test pieces was carried out in a controllable

electrically-heated press. Results at 145°C showed

that the process analogous to sulphur-vulcanisation

already occurs at this temperature, but the physical

properties of vulcanisates are considerably poorer

than those of sulphur-vulcanisates. Tests at 200°C,

however, gave vulcanisates whose tensile strength

was somewhat lower than sulphur vulcanisates,

while their elongation was equally large, e.g., 2 min

vulcanisation at 200°C already gave tensile strength

80 kg/sq.cm, elongation 275%, and Shore hardness

68°. Further heating gave no great improvement

in properties. A chemical mechanism of cross-

linking by a nitrile group to a carbon atom linked

to a nitrile group in an adjacent chain is proposed.

382D21MN21.6725

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(2)

SA PAVLOV

2 May

82 Formulation of seal mixes. B. A. PAVLOV
and M. S. MONASTYRSKAYA. *Legt. Prom.*, 1955,
No. 8, 35-9; *Ref. Zhur. Khim.*, 1956, abs. 37528.
Standard testing of rubber seals does not give a
characteristic picture of their service behaviour.
The fullest correlation with wear in laboratory tests
is given by the tear resistance and abrasion before
and after immersion in oils. It is proposed that all
the mechanical testing be carried out according to
GOST specifications. On the basis of the method
indicated for preliminary assessment of the proper-
ties of seals, for reciprocal motion with high pres-
sure, and of those working under high friction,
mixes are formulated on a base of nitrile rubber
with polyvinyl chloride and asbestos fibres.

382D21MN21.606M22221

Pavlov, S. A.

Vulcanization of butadiene-acrylonitrile rubber without sulfur. N. D. Zakharov, I. M. Zakharova, and S. A. Pavlov. *Leskaya Prom.* 13, No. 2, 20-9 (1955). Products obtained by vulcanization with and without S were compared. Even at 145°, processes similar to vulcanization take place, and tensile strength increases continuously with time, while residual elongation decreases. However, products obtained at this temp. are inferior to those contg. S. At 200°, products without S show improvement, but above 200° they show drop in quality. The structuring process is very weak at 145°, but considerably faster at 200°.

B. Z. Kamich

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(2)

PA 8/1

PAVLOV, S.A., doktor tekhnicheskikh nauk, professor; MATYUSHINA, Ye.V.,
kandidat tekhnicheskikh nauk.

Change of hair properties of sheepskin fur during dressing and
dyeing. Leg. prom. 15 no.11:28-30 H '55. (MIRA 9:2)
(Hides and skins)

PAVLOV, S. A.

USSR/Chemistry - Inorganic chemistry

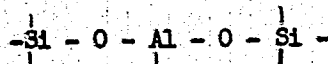
Card 1/1 Pub. 22 - 21/49

Authors : Andrianov, K. A., Memb. Corr. Acad. of Sc., USSR; Zhdanov, A. A.; and Pavlov, S. A.

Title : Thermal conversion of alkyl(aryl)acetoxysilanes and alkylhydroxysilanes into polyorgano-siloxanes and polyorganometallo-siloxanes

Periodical : Dok. AN SSSR 102/1, 85-88, May 1, 1955

Abstract : It was established experimentally that polyorganosiloxanes, having the hydroxy group in the Si atom will, when heated, lead to a condensation reaction resulting in the formation of siloxane bonds and will also react with metals or metal hydroxides forming a new class of polymers - polyorganometallo-siloxanes with the following structural polymeric chain:



The chem. composition of the polymers, which are silicate analogues, is described. Three USSR references (1947-1954). Table; graphs.

Institution :

Submitted : December 10, 1954

Parlor, S.A.

Plasticization of hydrophilic, high-molecular substances.
S. A. Pavlov and N. K. Barambelin, U.S.S.R. 103,797,
Sept. 28, 1956. High-mol. hydrophilic substances are
plasticized by mixing them with fatty acid esters. To pre-
vent depasticization under the influence of water, water-
insol. products of incomplete esterification of fatty hydroxy
acid sulfonates and polyhydroxy alcs or amino hydroxy
compds. are used. M. Hosen

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PAVLOV, S. A.

✓ Artificial leather. S. A. Pavlov and N. K. Barambolm.
U.S.S.R. 104,079, Oct. 26, 1952. A porous structure is
imparted to leather substitutes made from a sol. polyamide-
resin base by addn. of a polyhydroxy alc., such as glycerol
or a glycol, and CCl₄ to an alc. or aq. soln. of the resin. The
mixture is then applied to fabric by the usual method.

M. Hesch

2

Pavlov, S.A.

USSR / Chemical Technology. Chemical Products and Their Applica- I-31
tion. Leather. Fur. Gelatin. Tanning Agents.
Technical Proteins.

Abs Jour : Ref Zhur - Khimiya, No 3, 1957, No 10521

Author : Pavlov, S.A., and Khromova, N.S.

Inst : Moscow Technical Institute of the Light Industry

Title : On the Theory of the Action of Fillers

Orig Pub : Nauch. tr. Mosk. tekhnol. in-ta, legkoy prom-sti, 1956,
No 6, 60-64'

Abstract : The determining factor in the strengthening action of fillers in high molecular compounds appears to be the molecular structure of these substances. The effect of various fillers on the properties of a hydrophilic product have been investigated. It has been established that the fillers tested can be arranged in the following order of increasing effectiveness in strengthening the hydrophilic

Card 1/2

USSR / Chemical Technology. Chemical Products and Their Appli- I-31
cation. Leather. Fur. Gelatin. Tanning Agents.
Technical Proteins.

Abs Jour Ref Zhur - Khimiya, No 3, 1957, No 10521

Abstract product. zinc oxide > kaolin carbon black > chalk. The
considerable strengthening of hydrophilic mixtures obser-
ved when zinc oxide is used as the filler is explained by
the reaction of the filler with the carboxylic groups with
the possible formation of salt-like compounds.

Card 2/2

PAVLOV, S. A.

✓ 4885. Saponification (hydrolysis) of nitrite groups in a high molecular compound. N. D. ZAKHAROV and S. A. PAVLOV. *Nauka. Trudy Mosk. Tekhn. Inst. Inzh. Prom.* 1956, No. 2, 64-9; Referat. *Zh. Khim.*, 1957, abn. 23287. The authors studied the possibility of 'saponification' (i.e. hydrolysis) of butadiene-nitrite copolymers to amides. The hydrolysis of BKN-10 (partially hydrolyzed to carboxylic groups) in the presence of hydrogen peroxide in an alkaline medium at 40 to 70°C with subsequent conversion of the amide groups into amine groups by treatment with hypobromite leads to some increase in swelling in 0.1 N hydrochloric acid. On hydrolysis with water in an autoclave at 180° after treating with hypobromite the degree of swelling in 0.1 N hydrochloric acid increases considerably. The content of amino nitrogen amounts to 15% of the total.

382021MN21.326

dm orb

4E 22
S. A. Pavlov

PAVLOV, S.A.

✓ 5722. Vulcanization of synthetic rubbers without sulphur. N. D. ZAKHAROV and S. A. PAVLOV. Nauchn. Trudy Mosk. Tekhn. Inst. Legk. Prom., Sb. 7, 1956, 37-48; Kauch. i Rezina, 1957, No. 1, 48. Butadiene-acrylonitrile rubber (SKN), as well as sodium butadiene rubber (SKB) is capable of thermo-vulcanization, forming vulcanisates with high mechanical properties, e.g. with SKN a cure of 18 min at 200°C gives a vulcanisate of tensile strength 1,400 psi and elongation at break 260%, while a cure of 60 min at 200°C shows tensile strength 1,600 psi and elongation at break 230%. In contrast with SKB thermo-vulcanisates, for which lower values of elongation were observed than for sulphur vulcanisates, thermo-vulcanisates of butadiene-acrylonitrile rubber have a relative elongation which is not lower than that of its sulphur vulcanisates. A proposed scheme for thermal cross-linking of butadiene-acrylonitrile rubber is suggested. There are 15 references. 352D21MN21.573

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2 May

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KHROMOVA, N.S., kand. tekhn. nauk, dotsent; ALEKSANDROVA, Ye.M., inzh.;
PAVLOV, S.A., doktor tekhn. nauk, prof.

Use of condensation resins for the production of porous colored
rubber. Nauch. trudy MTILF no.27:99-103 '63.

(MIRA 1963)

1. Kafedra tekhnologii iskusstvennoy kozhi i plenochnykh pokrytiy
Moskovskogo tekhnologicheskogo instituta legkoy promyshlennosti.

ZURABYAN, K.M.; PAVLOV, S.A.

Impregnating leather by using aqueous polymer dispersion agents.
Leg.prom. 16 no.4:32-38 Ap '56. (MLRA 9:8)
(Leather industry) (Polymers and polymerization)

PAVLOV, S.A., doktor tekhnicheskikh nauk, professor.

Substitute of full value. Nauka i zhizn' 23 no.6:25 Je '56.
(MLRA 9:9)

(Leather, Artificial)

PAVLOV, S. A.

Hotmann reaction as applied to high polymers containing amide groups. N. D. Zakharov and S. A. Pavlov (Light Ind. Technol. Inst., Moscow). Zhur. ~~Obshch. Khim.~~ 26, 2280-4 (1950).—Hydrolysis of polymeric nitriles generally does not pause at the amide stage. The Hofmann reaction, employing alc. hypobalites is an effective method for synthesis of polymeric amino derivatives. In typical expts. KOH in EtOH was treated with Br, followed by the polymeric amide and the mixt. kept in the cold 24 hrs., then heated for varying periods. With substrate of butadiene-acrylonitrile rubber, as the polymeric nitrile, which had been prehydrolyzed to the amide by heating with H₂O at 180° under pressure (cf. Zakharov and Pavlov, Nauch. Trudy Moskov. Tekhnol. Inst. Legkoj Prom. 6, 61 (1955)), the use of the above mode of Hofmann reaction readily yielded products contg. CN, CO₂H, and NH₂ groups, which were capable of cation and anion exchange properties. The material retains the original double bond residual in the rubber. The product is swelled readily and can be dispersed in H₂O contg. a little NaOH. The dispersions are unusually stable and may be regarded as intermediate between true solns. and the usual dispersions of a hydrophobe in H₂O. The product can be vul. mixed with S. — G. M. Kozolapoff

chem

PM nji

Hotmann reaction as applied to high polymers containing
amide groups. N. D. Zakharov and S. A. Pavlov. J. Gen.
Chem. U.S.S.R. 26, 2501-3 (1950) (English translation). —
Ecc. C.A. 51, 8003d. B. M. R.

PM

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4#4
4#4 (g)
1/1 J. M. R.

PAVLOV, S. A.

"Significance of Moisture Penetration of High Molecular Compounds in the Production of Artificial Leather," by Professor S. A. Pavlov and Candidate Technical Sciences I. Lorant, Moscow Technological Institute of Light Industry imeni L. M. Kaganovich, Legkaya Promyshlennost', No 2, Feb 57, pp 36-39

The nature of moisture penetration of plastic-coated leathers was investigated. The plastics chosen were of various chemical composition; e.g., polyethylene, a hydrophobic plastic; polyvinyl chloride, a polar but not hydrophylic plastic; polyamide and polyvinyl acetate, both hydrophylic to a certain degree; copolymer of vinyl acetate and vinyl chloride; and polyvinyl alcohol. The moisture penetrating characteristics of the above plastics are listed in a table. (U)

SUM. 1371

MOTINA, L.F.: PAVLOV, S.A., doktor tekhnicheskikh nauk

Microstructure of board-type artificial leather. Leg.prom. 17 no.4:
20-29 Ap '57. (MIRA 10:4)

(Leather, Artificial--Testing)

SOV/138-59-4-5/26

AUTHORS: Kuznetsov, A.R., Lyudvig, P., Monastyrskaya, M.S., Pavlov, S.A.

TITLE: The Ionic Deposition of Carboxylate Latexes. Communication 2: Increasing the Thermal Stability of Films Prepared from Carboxylate Latexes (K voprosu ob otlozhenii karboksilatnykh lateksov. Soobshcheniye 2. Povysheniye termostoykosti plenok, poluchayemykh iz karboksilatnykh lateksov)

PERIODICAL: Kauchuk i Rezina, 1959, Nr 4, pp 17-19 (USSR)

ABSTRACT: The first part was published in "Kauchuk i Rezina", 1959, Nr 1. Experiments were carried out on increasing the thermal stability of carboxyl groups containing latex films by ionic deposition. The following factors were determined for films made from SKS-5-30 latex: dependence of the tensile strength on the time of vulcanisation, relaxation curves and equilibrium moduli at 100% elongation (Figures 1 and 2). The vulcanisation temperature was 100°C, pH 6.7, 20% magnesium chloride was used as a vulcanisation agent. Experiments showed that the tensile strength increased on raising the vulcanisation temperature. Films made of latex SKS-5-30 with polymethyl acrylate were also tested as the introduction of polyacrylates increases the adhesion of carboxylate latex films to fibres (Figures 3, 4 and 5).

Card 1/2 Optimum strength was obtained when 20% of either polymethyl

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Latexes

acrylate or polymethyl methacrylate emulsions were added to the latex. Investigations on the action of calcium ion as coagulating and vulcanising agent showed that calcium chloride can be used for this purpose. Films with the largest degree of thermal stability were obtained by adding melamine-formaldehyde resins to the SKS-5-30 latex and vulcanising the product in the presence of magnesium ions. The reaction mixture was heated for 30 minutes at 100°C and subjected to vulcanisation for one hour at pH of 8.1; 20% magnesium chloride solution was used as a vulcanising agent. Results obtained during these experiments are discussed and given in the form of graphs (Figures 6 and 7). The strength of films was considerably increased when using SKS-5-30 in conjunction with melamine-formaldehyde resins; optimum results were obtained when 20% of the resin was used. The vulcanisates show considerable relative elongation even when 30% of the resin is added to the polymer. There are 7 figures and 4 Soviet references.

ASSOCIATION: Moskovskiy tekhnologicheskii institut legkoy promyshlennosti
Card 2/2 -nosti (Moscow Technological Institute of Light Industry)

FIRSOVA, K.A.; PAVLOV, S.A.; BADANINA, A.I.

Dependence of surface properties and structure of leather
fiber on the grinding method used. Kozh.-obuv.prom. no.6:11-15
Je '59. (MIRA 12:9)

(Leather)

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AUTHORS: Ivanova, R. A.; Kas'yanova, A. A.; Pavlov, S. A.

TITLE: A study on obtaining films of complex dispersions of hydrophylic polymers, and improving their resistance to water

SOURCE: Kauchuk i rezina, no. 2, 1965, 12-15

TOPIC TAGS: rubber, latex, polyamide, physicochemical property, water resistance, tensile strength, chromium compound/ AK 60/40 polyamide, SKS 30 1 latex, Polyani dynamometer

ABSTRACT: The possibility of obtaining films from carboxilate latexes with alcohol-soluble polyamides was studied, and the properties of these films were investigated. The work was conducted to learn if the high elasticity of carboxilate rubber could be combined with the high strength, toughness, and hydrophylic properties of polyamides. Materials under investigation comprised polyamide AK 60/40 and butadiene-styrole carboxilate latex SKS-30-1¹⁴ with 12% of methacrylic acid.¹⁷ The desired pH was imparted with 3% NaOH solution. The lack of a common solvent for all the materials made it necessary to resort to a water dispersion. The highest concentration of the polyamide was 10%, and the viscosity of the dispersion reached 9.5-12.5 centipoises when alizarin oil was used. The best results in obtaining the

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